## REMARKS

Claims 1, 3-11, 13-23, 25-26, and 28-33 are currently pending in this application, with claims 1, 11, 30, and 31 being independent. Claims 1, 5, 11, 15, and 31-33 have been amended to better define the claimed invention. Claims 2 and 12 have been cancelled without prejudice or disclaimer of the subject matter therein.

Applicants respectfully request favorable consideration in light of the amendments and remarks presented herein, and earnestly seek timely allowance of the pending claims.

### *Claim Rejections – 35 USC §103*

The Office Action indicated claims 1-9, 11-17, 23, 25-26, and 28-33 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 5,675,672 to Nakabayashi ("Nakabayashi") in view of U.S. Pat. No. 4,903,312 to Sato ("Sato"). Applicants respectfully submit the Examiner has failed to establish a *prima facie* case of obviousness and traverse the rejection.

The Examiner has provided a new ground of rejection for independent claims 1, 11, 30, and 31, and admits Nakabayashi fails to teach or suggest all of the elements of these claims. The Examiner attempts to cure the deficiencies of Nakabayashi by combining it with the teachings of Sato.

However, Applicants respectfully submit that Sato, either separately or in combination with Nakabayashi, fails to teach or suggest, at least, "a processing device for converting coherent pieces of the information in the images to a coded representation of the extent of the pieces of information in at least one dimension," as recited in claim 1 (emphasis added); "converting

coherent pieces of the information in the images to a coded representation of the extent of the pieces of information in at least one dimension," as recited in claim 11 (emphasis added); "identifying the graphical extent, in at least one dimension, of elements in the image," as recited in claim 30 (emphasis added); and "a processor which identifies the graphical extent, in at least one information, of elements in the image," as recited in claim 31 (emphasis added).

Sato merely teaches a character recognition method which variably subdivides a character region in which a character to be recognized is located (col. 1, lines 11-14). Sato further teaches an embodiment wherein a plurality of directionality codes are selectively assigned to the contour of a binary character image corresponding to a character to be recognized, and then the total number of assigned directionality codes and projected histograms onto X and Y axes are obtained (col. 2, lines 13-20).

Specifically, Sato teaches providing a normalized and smoothed individual binary character to a feature extracting unit wherein a plurality of predetermined directionality codes are selectively assigned to the contour of such a binary character image. Two sets of directionality codes, one for application to white pixels and one for application for black pixels is contemplated (col. 9, lines 34-43; Fig. 9). As shown for the white pixels in Fig. 6, there are nine different directionality codes of "0" through "8" which are associated with patterns of pixel arrangements. The corresponding pixel arrangement pattern consists of five pixels which include a center pixel as a pixel of interest, a pair of left and right pixels which are located left-hand and right hand sides of the center pixel and a pair of top and bottom pixels which are located on the opt and bottom of the center pixel. Each pixel is thus represented by a small square. A shaded square represents a black pixel and an unshaded square represents a white pixel (col. 5, lines 52-67).

Moreover, as can be seen in Fig. 6, the codes are not unique; for example, the code "0" corresponds to eight different pixel arrangements. Given the non-unique nature of the code, it would not be adequate to encode the extent of pieces of information.

The assignment of a directionality code to each of the white pixels adjacent to the contour of a binary character image is carried out when the line broadened binary character image is scanned during which each of the white pixels bordering the contour of the line broadened binary character image, together with its top, bottom, right, and left pixels, is compared with each of the patterns shown in Fig. 6. Thus, when a pixel pattern having the same arrangement of black and white pixels has been found, the corresponding directionality code is assigned to the white pixel in question (col. 6, lines 1-12).

Therefore, Sato is distinguished by the present invention at least in that Sato's directionality codes fail to code extent of the pieces of information in at least one dimension.

Accordingly, Applicants respectfully request the Examiner to withdraw the rejections of claims 1, 11, 30, and 31. Claims 2-9 and 25-26 depend from claim 1 and are allowable at least by virtue of their dependency from allowable claim 1. Claims 12-17 and 28-29 depend from claim 11 and are allowable at least by virtue of their dependency from allowable claim 11. Claim 32 depends from claim 30, and claim 33 depends from claim 31, each allowable at least by virtue of their respective dependencies.

The Office Action indicated claims 10 and 18-22 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nakabayashi in view of U.S. Pat. No. 5,220,621 to Saitoh ("Saitoh"). Applicants respectfully submit the Examiner has failed to establish a *prima facie* case of obviousness and traverse the rejection.

Claim 10 includes the features of allowable claim 1 and claims 18-19 and 20-22 include the features of allowable claim 11.

As admitted by the Examiner, Nakabayashi fails to teach or suggest, "a processing device for converting coherent pieces of the information in the images to a coded representation of the extent of the pieces of information in at least one dimension," as recited in claim 1; and "converting coherent pieces of the information in the images to a coded representation of the extent of the pieces of information in at least one dimension," as recited in claim 11.

Saitoh merely teaches an image character recognition system, which utilizes a generalized Hough transformation, and is silent with respect to the features quoted above.

Applicants note that in the rejection of claim 1, the Examiner attempted to cure the deficiencies of Nakabayashi in this respect through the combination of Sato. Given the Examiner's admission of the deficiencies of Nakabayashi, and the fact Saitoh fails to cure said deficiencies, this rejection as it currently stands is prima facie inadequate. If the rejection is reinstated using a new ground of rejection in a subsequent Office Action, it is respectfully requested the Office Action be made non-final so Applicants have an adequate opportunity to respond.

Accordingly, claim 10 is allowable at least by virtue of its dependency from independent claim 1, and claims 18-19 and 20-22 are allowable at least by virtue of their dependency from allowable claim 11.

***Conclusion***

In view of the above amendments and remarks, this application appears to be in condition for allowance and the Examiner is, therefore, requested to reexamine the application and pass the claims to issue.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at telephone number (703) 205-8000, which is located in the Washington, DC area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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